## CLAIMS

What is claimed is:

1. A controllable heating apparatus comprising:

a heating element;

a voltage source coupled to said heating element;

a variable resistor coupled to said heating element and said voltage source, said variable resistor including a fixed resistive element and a moveable element, said moveable element having a position and adjustably contacting said fixed resistive element at a contact point associated with said position;

said variable resistor having a resistance that is at least partially non-linearly related to said position;

said heating element having a dissipated power that is at least partially linearly related to said position.

2. The controllable heating apparatus of claim 1, wherein said heating element comprises a thin-film resistor.

3. The controllable heating apparatus of claim 2, wherein said heating element comprises a thin-film resistor having a serpentine pattern.

4. The controllable heating apparatus of claim 1, wherein said voltage source comprises an AC power source.

5. The controllable heating apparatus of claim 1, further including a vapor dispensing device thermally coupled to said heating element, said vapor dispensing device configured to release vapor into an environment at a rate that is a function of said dissipated power.

6. The controllable heating apparatus of claim 1, wherein said moveable element comprises a component selected from the group consisting of a slider switch, a dial, a knob, a screw, and a thumbwheel.

7. The controllable heating apparatus of claim 1, wherein said fixed resistive element comprises at least one thin film resistor.

8. The controllable heating apparatus of claim 7, wherein said at least one thin film resistor has a first end, a second end, and an attribute that varies non-linearly between said first end and second end, said attribute selected from the group consisting of width, thickness, material, and sheet resistance.

9. The controllable heating apparatus of claim 1, wherein said fixed resistive element has a length and comprises a first thin film resistor and a second thin film resistor substantially parallel to said first thin film resistor, said first and second thin film resistors having a width that varies non-linearly over said length.

10. The controllable heating apparatus of claim 9, wherein said width varies continuously over said length in accordance with a geometric function selected from the group consisting of a square-root function, a logarithmic function, and a polynomial function.

12. The controllable heating apparatus of claim 9, wherein said width varies in accordance with a period of discrete steps.

13. The controllable heating apparatus of claim 9, wherein said moveable element has a high position, a low position, and at least one intermediate position between said high and low positions, and wherein said dissipated power at said high, low, and intermediate position define a substantially linear curve.

14. A variable resistor for controlling a heating element coupled in series with a voltage source V, the heating element being of the type characterized by a resistance RH and a dissipated power PH = IVH, wherein I is the current through the heating element and VH is the voltage across the heating element, said variable resistor comprising:

a fixed resistive element having a length *L*;

a moveable element having a position *x* adjustably contacting said fixed resistive element at a contact point associated with said position *x*;

said fixed resistive element having a resistance *RS*(x);

wherein the dissipated power *PH* is related to *RS*(x) by the equation:

$$P_H = C_1\left(\frac{1}{R_S^2 + C_2 R_S + C_3}\right)$$

where $C_1 = V^2 R_H$, $C_2 = 2R_H$, and $C3 = R_H{}^2$;

and wherein RS(x) is a non-linear function and PH(x) is at least partially linear.

15. The variable resistor of claim 14, wherein $R_S(x) \propto \sqrt{x/L}$.

16. The variable resistor of claim 14, wherein said fixed resistive element comprises two substantially parallel thin film resistors having widths *w* which vary non-linearly as a function of *x*.

17. The variable resistor of claim 14, wherein $w(x) \propto \sqrt{x/L}$.

18. The variable resistor of claim 14, wherein said moveable element has a high position $X_{high}$, a low position $X_{low}$, and at least one intermediate position, wherein said dissipated power $P_H$ has a curve which substantially intersects a line defined by ($X_{high}$, $P_H(X_{high})$) and ($X_{low}$, $P_H(X_{low})$) at three points along said curve.

19. A vapor-dispensing device configured to connect to an electrical receptacle comprising a voltage source, said device comprising:

a reservoir of volatizable material;

a delivery system communicating with said volatizable material, said delivery system configured to facilitate evaporation of said volatizable material into an environment at an evaporation rate, said delivery system including a heating element configured to produce a dissipated power, said evaporation rate being a function of said dissipated power;

a variable resistor coupled to said heating element and said voltage source, said variable resistor including a fixed resistive element and a moveable element, said moveable element having a position and adjustably contacting said fixed resistive element at a contact point associated with said position;

said variable resistor having a resistance that is at least partially non-linearly related to said position;

said heating element having a dissipated power that is at least partially linearly related to said position.

20. The vapor-dispensing device of claim 19, wherein said heating element comprises a thin-film resistor and said variable resistor comprises at least one thin-film resistor having a width that varies across its length.